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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,698	12/08/2003	Jason D. Hanzlik	10395US01	3984

7590

12/12/2006

Imation Corp.  
PO Box 64898  
St. Paul, MN 55164-0898

EXAMINER
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HAUGLAND, SCOTT J

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,698	<b>Applicant(s)</b> HANZLIK ET AL.	
	<b>Examiner</b> Scott Haugland	<b>Art Unit</b> 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5-11, 14-18 and 23-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-11, 14-18, and 23-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6, 10, 14, 15, 17, 23, and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Morita et al (U.S. Pat. Appl. Pub. No. 2002/0158161).

Morita et al discloses a tape reel assembly for a data storage tape cartridge comprising: a hub 4, 6, 21 defining a tape winding surface, a flange 22, 23 extending in a radial fashion from an end of the hub, and teeth (teeth on gear 42; teeth 63) formed from a polymer including a lubricating additive (par. 119, p. 5).

With regard to claim 1, the teeth are integrally formed with the hub (i.e., portion 4 of the hub).

The teeth on gear 42 and teeth 63 are seen to be outwardly projecting relative to one of the ends of the tape winding surface as recited in claim 17 since they both point in a direction that leads away from the surface.

The teeth of hub portion 4 are seen to be driven teeth since they are driven upwardly (e.g., in Figs. 2 and 3) when drive means 11 engages the tape reel assembly, they would be driven by the reel when the cartridge is moved due to inherent play in the

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connection between protrusion 33 and groove 45 in the restraining member 4, and they are capable of being driven in rotation about the central axis of the restraining member 4 when it is appropriately mounted. The teeth 63 of hub portion 6 are driven upwardly when drive means 11 engages the tape reel assembly and are driven to rotate by the drive means 11 during normal recording/reproducing operation of the tape reel assembly.

With regard to claims 5, 14, and 23, Morita et al discloses that the lubricating additive is polytetrafluoroethylene, silicone, etc. (par. 119, p. 5).

With regard to claims 6 and 15, Morita et al discloses that the polymer is glass-filled polycarbonate (par. 119, p. 5).

With regard to claim 10, the teeth 42, 63 are extensions of the end of the hub 4, 6, 21. Note that Morita et al discloses a housing 3 forming an enclosed region containing the tape reel assembly and that the teeth on gear 42 and the teeth 63 are exposed within the opening 32a in the housing.

Claims 2, 7-9, 11, 16, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al (U.S. Pat. Appl. Pub. No. 2002/0158161) as applied to claims 1, 6, 10, 15, and 17 above, and further in view of Boutni (U.S. Pat. No. 4,749,738).

Morita et al is described above.

Morita et al does not disclose a polymer including up to 25%, 2-10%, or 5% by weight of lubricating additive. Morita et al does not disclose polycarbonate that is 20% glass-filled and containing approximately 5% by weight of polytetrafluoroethylene.

Boutni teaches forming machine elements including gears of a compound comprising polycarbonate, 20% glass fiber, and 5% polytetrafluoroethylene (see example 9, col. 10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the teeth of the reel assembly of Morita et al of a polymer having 5% polytetrafluoroethylene lubricant as taught by Boutni to provide the teeth with good strength and wear resistance.

### ***Response to Arguments***

Applicants' arguments filed 9/25/06 have been fully considered but they are not persuasive.

Applicants argue that neither element 4 or element 6 of Morita et al is a hub that defines a tape winding surface. However, elements 4 and 6 form part of a hub that also includes element 21 which Applicants recognize as defining a tape winding surface.

With regard to Applicants' comment that teeth 24 in Morita et al are not integrally formed by the hub 21, Applicants' attention is directed to Figs. 3, 11, 25, 56, and 58 and par. [0108].

Applicants argue that Boutni does not teach modifying the teeth in Morita et al to include the additives taught by Boutni. However, Morita et al discloses the components

of the claimed material composition, but does not give proportions. Boutni teaches proportions of various components used to form a plastic composition that is suitable for forming gears. There would be a more than reasonable expectation of success in the outcome of modifying the Morita et al cartridge to use the plastic composition taught by Boutni due to the similar use disclosed for the Boutni composition. It would have been well within the level of skill of an ordinary artisan to determine a suitable specific composition of the type generally described by Morita et al.

### ***Conclusion***


**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

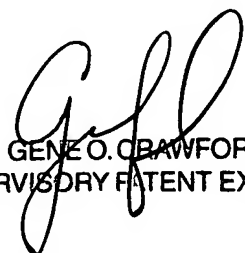
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
sjh  
11/24/06

  
GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER